

1 Amendments to the Claims:

2 This listing of claims will replace all prior versions, and
3 listings, of claims in the application using (Original) (Currently
4 Amended) (New) (Canceled) (Previously Presented) nomenclature, as
5 recited in the below listing of claims.

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1 1. (Previously Presented) A system for communicating a first
2 formatted data stream and a second formatted data stream through a
3 dual spectrum signal over a communication bandwidth, the system
4 comprising,
5 a first code formatter for formatting a first spreading code
6 into a first formatted code,
7 a first spreader for spectrum spreading the first formatted
8 data stream by the first formatted code into a first spread
9 spectrum signal,
10 a second code formatter for formatting a second spreading code
11 into a second formatted code,
12 a second spreader for spectrum spreading the second formatted
13 data stream by the second formatted code into a second spread
14 spectrum signal, and
15 a modulator for combining and communicating the first spread
16 spectrum signal and the second spread spectrum signal into the dual
17 spectrum signal, the first spread spectrum signal having a first
18 spectrum over the communication bandwidth and the second spread
19 spectrum signal having a second spectrum over the communication
20 bandwidth, the first spread spectrum signal and the second spread
21 spectrum signal respectively uniphase modulating a carrier, the
22 dual spectrum signal being a uniphase dual spectrum signal,
23 wherein,
24 the first code formatter is an NRZ code formatter, and
25 the second code formatter is a staggered Manchester code
26 formatter.

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1 2. (Original) The system of claim 1 wherein,

2 the first spectrum is a nonsplit spectrum with a peak within the
3 communication bandwidth, and

4 the second spectrum is a split spectrum with a null within the
5 communication bandwidth.

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7 3. (Original) The system of claim 1 wherein the system is a code
8 division multiple access system.

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10 4. (Original) The system of claim 1 having a first receiver for
11 spread spectrum despreading the first spread spectrum signal and
12 the second spread spectrum signal, the first receiver comprising,
13 a first replica code formatter for formatting a first replica
14 spreading code into a first replica formatted code, the first
15 replica spreading code being a replica of the first spreading code,
16 and

17 a first despreader for spectrum despreading the first spread
18 spectrum signal by the first replica formatted code into a first
19 despread signal.

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1 5. (Original) The system of claim 1 having a second receiver for
2 spread spectrum despreading the second spread spectrum signal and
3 the second spread spectrum signal, the second receiver comprising,
4 a second replica code formatter for formatting a second
5 replica spreading code into a second replica formatted code, the
6 second replica spreading code being a replica of the second
7 spreading code, and
8 a second desreader for spectrum despreading the second spread
9 spectrum signal into a second despread signal.

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1 6. (Original) The system of claim 1 further having a first receiver
2 and a second receiver,
3 the first receiver comprising,
4 a first replica code formatter for formatting a first replica
5 spreading code into a first replica formatted code, the first
6 replica spreading code being a replica of the first spreading code,
7 and
8 a first despreader for spectrum despreading the first spread
9 spectrum signal into a first despread signal, and
10 a detector for detecting the first data stream for the first
11 despread signal, and
12 the second receiver comprising,
13 a second replica code formatter for formatting a second replica
14 spreading code into a second replica formatted code, the second
15 replica spreading code being a replica of the second spreading
16 code, and
17 a second despreader for spectrum despreading the second spread
18 spectrum signal by the second replica formatted code into a second
19 despread signal.

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1 7. (Original) The system of claim 1 further comprising,
2 a first replica code formatter for formatting a first replica
3 spreading code into a first replica formatted code, the first
4 replica spreading code being a replica of the first spreading code,
5 a first despreader for spectrum despreading the first spread
6 spectrum signal into a first despread signal,
7 a second replica code formatter for formatting a second
8 replica spreading code into a second replica formatted code, the
9 second replica spreading code being a replica of the second
10 spreading code, and
11 a second despreader for spectrum despreading the second spread
12 spectrum signal into a second despread signal,
13 wherein,
14 the first code formatter is an NRZ formatter,
15 the first spread spectrum signal is a nonsplit spectrum signal,
16 the first spectrum is a nonsplit spectrum having a center peak,
17 the second code formatter is a staggered Manchester formatter,
18 the second spread spectrum signal is a split spectrum signal,
19 the second spectrum is a split spectrum having a center null,
20 the first replica code formatter is an NRZ formatter, and
21 the second replica code formatter is a staggered Manchester
22 code formatter.

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1 8. (Original) The system of claim 1 further comprising,
2 a first replica code formatter for formatting a first replica
3 spreading code into a first replica formatted code, the first
4 replica spreading code being a replica of the first spreading code,
5 a first despreader for spectrum despreading the first spread
6 spectrum signal into a first despread signal,
7 a second replica code formatter for formatting a second
8 replica spreading code into a second replica formatted code, the
9 second replica spreading code being a replica of the second
10 spreading code, and
11 a second despreader for spectrum despreading the second spread
12 spectrum signal into a second despread signal,
13 wherein,
14 the first code formatter is in a transmitter,
15 the first spread spectrum signal is a nonsplit spectrum signal,
16 the second code formatter is in the transmitter,
17 the second spread spectrum signal is a split spectrum signal,
18 the first replica code formatter is in a first receiver,
19 the second replica code formatter is in a second receiver,
20 the first formatted data stream is communicated between the
21 transmitter and the first receiver, and
22 the second formatted data stream is communicated between the
23 transmitter and the second receiver.

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1 9. (Original) The system of claim 1 further comprising,
2 a first replica code formatter for formatting a first replica
3 spreading code into a first replica formatted code, the first
4 replica spreading code being a replica of the first spreading code,
5 a first despreader for spectrum despreading the first spread
6 spectrum signal into a first despread signal,
7 a second replica code formatter for formatting a second
8 replica spreading code into a second replica formatted code, the
9 second replica spreading code being a replica of the second
10 spreading code, and
11 a second despreader for spectrum despreading the second spread
12 spectrum signal into a second despread signal,
13 wherein,
14 the first code formatter is an NRZ formatter,
15 the first spread spectrum signal is a nonsplit spectrum signal,
16 the second code formatter is a staggered Manchester formatter,
17 the second spread spectrum signal is a split spectrum signal,
18 the first replica code formatter is an NRZ formatter,
19 the second replica code formatter is a staggered Manchester
20 code formatter,
21 the first code formatter and the second code formatter are
22 disposed in a transmitter.

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1 10. (Original) The system of claim 1 wherein,
2 the staggered Manchester format is a staggered Biphas-L
3 format.

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5 11. (Original) The system of claim 1 wherein,
6 the staggered Manchester format is a staggered binary offset
7 carrier format.

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12. (New) A system for communicating a first formatted data stream and a second formatted data stream through a dual spectrum signal over a communication bandwidth, the system comprising,

- a first code formatter for formatting a first spreading code into a first formatted code,
- a first spreader for spectrum spreading the first formatted data stream by the first formatted code into a first spread spectrum signal,
- a second code formatter for formatting a second spreading code into a second formatted code,
- a second spreader for spectrum spreading the second formatted data stream by the second formatted code into a second spread spectrum signal, and
- a modulator for combining and communicating the first spread spectrum signal and the second spread spectrum signal into the dual spectrum signal, the first spread spectrum signal having a first spectrum over the communication bandwidth and the second spread spectrum signal having a second spectrum over the communication bandwidth, the first spread spectrum signal and the second spread spectrum signal respectively modulating only one phase of a carrier, the dual spectrum signal being a uniphase dual spectrum signal, wherein,
 - the first code formatter is an NRZ code formatter,
 - the second code formatter is a staggered Manchester code formatter,
 - the uniphase modulation of the carrier being defined as modulating one phase of the carrier by one single signal being the

1 first spread spectrum signal into a first uniphase modulated
2 signal,

3 the uniphase modulation of the carrier being defined as
4 modulating one phase of the carrier by one single signal being the
5 second spread spectrum signal into a second uniphase modulated
6 signal, and

7 the dual spectrum signal being a combination of the first
8 uniphase modulated signal and the second uniphase modulated signal
9 when combined, the first uniphase modulated signal and the second
10 uniphase modulated signal both modulating only one phase of the
11 carrier.

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13 13 (New) The system of claim 12 wherein,

14 the first code formatter is an NRZ code formatter, and

15 the second code formatter is a staggered Manchester code
16 formatter.

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1 14. (New) A system for communicating a first formatted data stream
2 and a second formatted data stream through a dual spectrum signal
3 over a communication bandwidth, the system comprising,
4 a first code formatter for formatting a first spreading code
5 into a first formatted code,
6 a first spreader for spectrum spreading the first formatted
7 data stream by the first formatted code into a first spread
8 spectrum signal,
9 a second code formatter for formatting a second spreading code
10 into a second formatted code,
11 a second spreader for spectrum spreading the second formatted
12 data stream by the second formatted code into a second spread
13 spectrum signal, and
14 a modulator for modulating only one phase of the carrier by
15 only the first spread spectrum signal for providing a first
16 modulated signal and for modulating the same phase of the carrier
17 by only the second spread spectrum signal for providing a second
18 modulated signals, and
19 a combiner for combining the first modulated signal and the
20 second modulated signal into the dual spectrum signal, the dual
21 spectrum signal being a carrier modulated signal having only one
22 carrier phase modulated, the first modulated signal from the first
23 spread spectrum signal having a first spectrum over the
24 communication bandwidth, the second modulated signal from second
25 spread spectrum signal having a second spectrum over the
26 communication bandwidth.

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1 15 (New) The system of claim 14 wherein,
2 the first code formatter is an NRZ code formatter, and
3 the second code formatter is a staggered Manchester code
4 formatter.

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